

RURAL ECONOMIC DEVELOPMENT: FEDERAL INVESTMENTS IN CLEAN AND ENERGY EFFICIENCY PROJECTS

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ENERGY IN OUR RURAL AREAS

States are increasingly concerned with the “rural energy burdens”

Energy burden for rural households is about 33 % higher than the national average.

Energy burden more drastic for low-income rural households (spend an avg. of 9 % of household income on energy)

Electric co-ops serve 92% of the persistent poverty counties in America.

Electric co-ops power over 21.5 million businesses, homes, schools and farms in 48 states.

Electric co-ops added over 900 MW of new renewable capacity in 2022.

Sources: Rural Data Resources for State Energy Planning and Programs, May 2020. NASEO. [Final Rural Report May 20201.pdf \(naseo.org\)](#)

American Council for an Energy-Efficient Economy. “The High Cost of Energy in Rural America: Household Energy Burdens and Opportunities for Energy Efficiency.” July 2018.

<https://www.aceee.org/sites/default/files/publications/researchreports/u1806.pdf>

NRECA, [America’s Electric Cooperatives](#), *Electric Co-op Facts & Figures*. April 2023. https://www.electric.coop/wp-content/uploads/2023/04/2023_NCS5233_Coop_FactsAndFigures_4.10.23_v3.pdf

LET'S GET TO WORK...

“Energy is a building block of our society and economy...The extent to which we take advantage of the opportunities this transformation presents to localize our energy systems and thereby drive investment into our communities will determine the extent to which the clean energy transformation will create a rural renaissance.”

Michelle Moore, *Rural Renaissance: Revitalizing America's Hometowns through Clean Power.*

IRA FUNDING FOR RURAL DEVELOPMENT

- Up to **\$1 billion** for RUS loans for renewable energy infrastructure.
 - Loan forgiveness of up to 50% of the loan amount.
 - Eligible entities include electric service providers, including municipals, cooperatives, investor-owned and Tribal utilities.
- Up to **\$2.025 billion** for the Rural Energy for America Program (REAP)
 - \$303 million set aside for underutilized technologies and technical assistance
- Up to **\$500 million** in grants for infrastructure improvements to blend, store or distribute biofuels.
 - includes installing, retrofitting or upgrading dispensers for ethanol at retail stations as well as home heating oil distribution centers
- Up to **\$9.7 billion** to offer loans, grants, loan modifications and other financial assistance to support the purchase/deploy renewable energy systems, zero-emission systems and carbon capture systems.
 - Funding also may be used to make energy-efficiency improvements to generation and transmission systems of eligible entities.

REFERENCES TO FUNDING SOURCES

- Inflation Reduction Act Guidebook- Clean Energy
 - <https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/>
- The Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization- Funding Clearinghouse
 - <https://energycommunities.gov/funding-opportunities/all-funding/>
- USDA-Rural Development- Selected Federal Support for Clean Energy by Potential Uses
 - <https://www.rd.usda.gov/media/file/download/usda-federal-support-for-clean-energy-potential-uses-508-english.pdf>



SELECTED FUNDING OPPORTUNITIES

USDA- Rural Development

Rural Energy for America Program (REAP)
Rural Energy Savings Program (RESP)

Appalachian Regional Commission

Appalachian Regional Initiative for Stronger Economies (ARISE)

US Treasury- Internal Revenue Service

Elective Pay (Direct Pay)



RURAL ENERGY FOR AMERICA PROGRAM



REAP

What's available?

- guaranteed loan financing
- grant funding to agricultural

Who can apply?

- Agricultural producers** (at least 50% gross income from agricultural operations)
- Small businesses**- (Must be located in eligible rural areas + meet SBA size standard)

What for?

- purchase & installation of renewable energy systems
- purchase, installation & construction of energy efficiency improvements

HOW REAP FUNDS MAY BE USED?

Renewable energy systems

- Biomass (for example: biodiesel and ethanol, anaerobic digesters, and solid fuels)
- Geothermal for electric generation or direct use
- Hydropower below 30 megawatts
- Hydrogen
- Small and large wind generation
- Small and large solar generation
- Ocean (tidal, current, thermal) generation

Energy Efficiency Improvements

- High efficiency heating, ventilation and air conditioning systems (HVAC)
- Insulation
- Lighting
- Cooling or refrigeration units
- Doors and windows
- Electric, solar or gravity pumps for sprinkler pivots
- Switching from a diesel to electric irrigation motor
- Replacement of energy-inefficient equipment

Requires energy
audit or energy
assessment

REAP GRANTS

Renewable Energy Systems

- \$2,500 minimum
- \$1 million maximum

Energy Efficiency

- \$1,500 minimum
- \$500,000 maximum

REAP LOAN GUARANTEES

- Loan guarantees on loans up to 75 % of total eligible project costs.
- Combined grant and loan guarantee funding up to 75% of total eligible project costs.
- Interest rates are negotiated between the lender and borrower.
- Rates may be fixed or variable.
- Variable interest rates may not be adjusted more often than quarterly.
- There is an initial guarantee fee, currently 1 % of the guaranteed amount.
- There is a guarantee retention fee, currently 0.25 % of the outstanding principal balance, paid annually.
- Applicants must provide at least 25 % of the project cost if applying for loan.

HOW TO APPLY?

- Contact the Rural Development Energy Coordinator in your state.

https://www.rd.usda.gov/sites/default/files/RBS_StateEnergyCoordinators.pdf

- Pre-register with the System for Award Management (SAM) and have the UEI
- Loan guarantees contact the state program specialist. Visit also the OneRD Guarantee portal...

<https://www.rd.usda.gov/onerdguarantee>



REAP APPLICATION WINDOWS

- **Open for Fiscal Years 2023 & 2024**
- **Next application windows:**

December 31, 2023

March 31, 2024

June 30, 2024

September 30, 2024



RURAL ENERGY SAVINGS PROGRAM

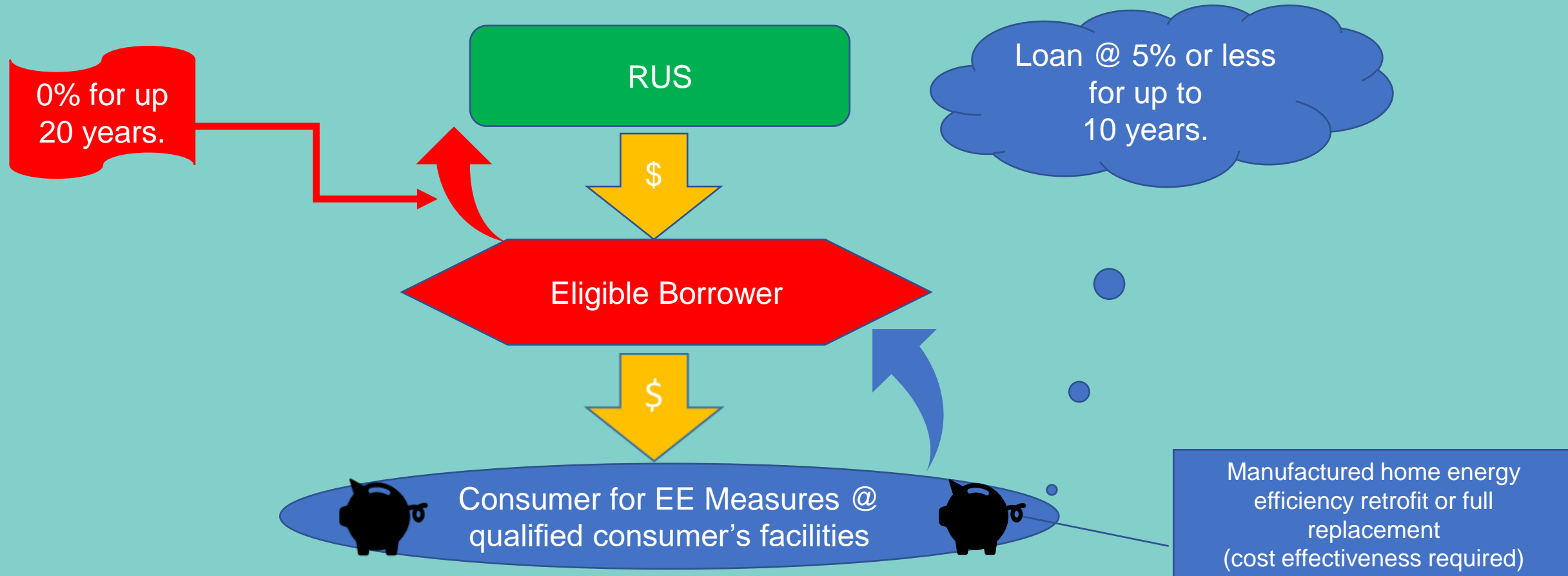


RESP PURPOSE

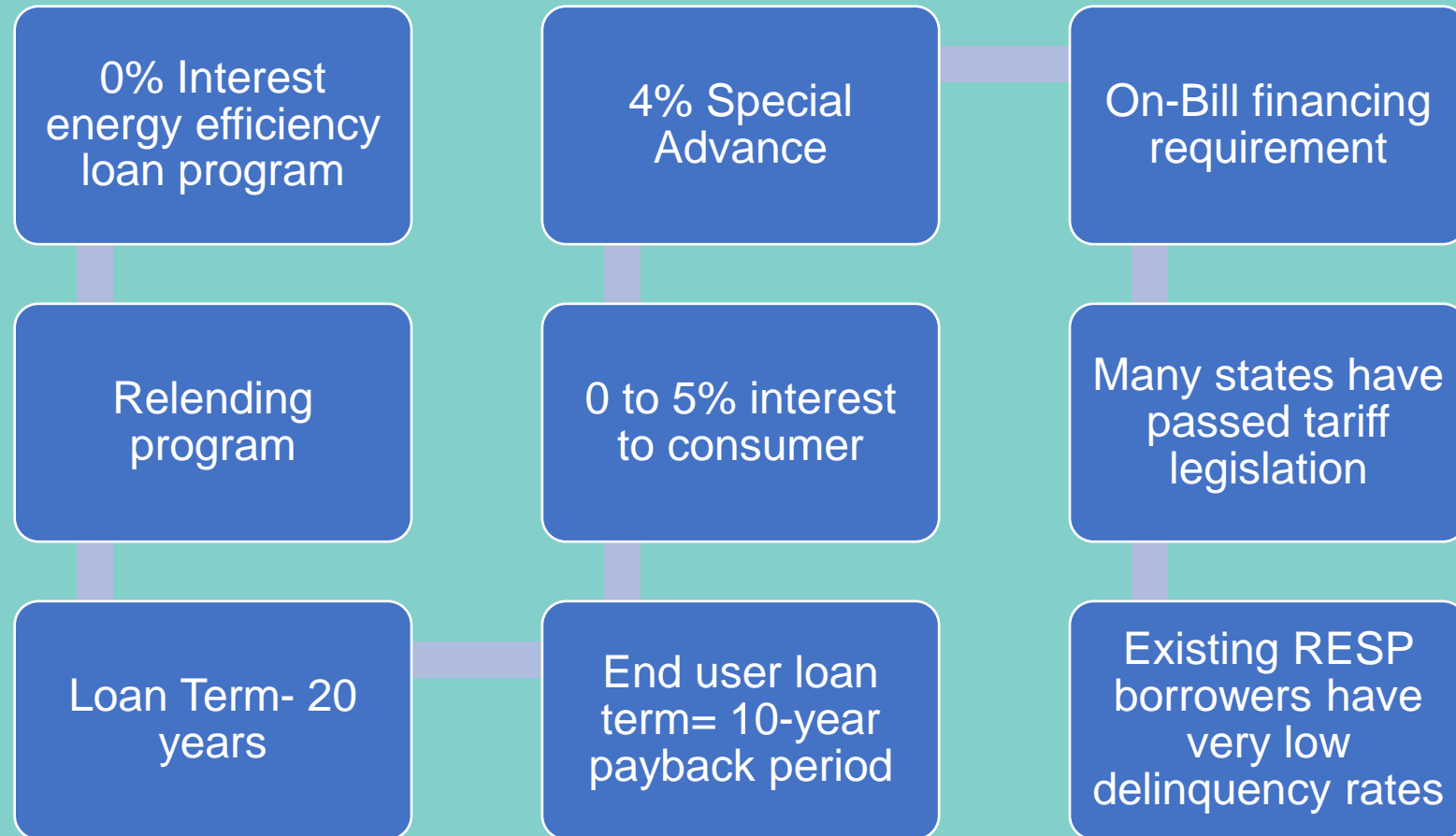
- Help **rural** families and small businesses achieve cost savings by providing loans to qualified consumers through eligible entities to implement durable cost-effective energy efficiency measures, energy storage, and renewable energy technologies.
- RUS Direct Loan to Borrowers so that they can relend to their consumers for energy efficiency investments, energy storage and renewable energy technologies.

*Rural means any area that has a population of 50,000 or less inhabitants or any other area designated eligible by statute

RESP OVERVIEW



KEY ELEMENTS ABOUT RESP





WHO CAN PARTICIPATE IN RESP? (BE A BORROWER)

- any public power district, public utility district, or similar entity, or any electric cooperative that borrowed and repaid, prepaid, or is paying an electric loan made or guaranteed by RUS;
- any entity primarily owned or controlled by 1 or more entities described above; or
- any other corporations, states, territories, and subdivisions and agencies thereof; municipalities; people's utility districts; and cooperative, nonprofit, limited-dividend, or mutual associations **that provide or propose to provide eligible purposes under RESP**, including energy efficiency, renewable energy, energy storage or energy conservation measures and related services, improvements, financing, or relending



WHO ARE THE NEW TYPES OF APPLICANTS?

Green Banks

Municipalities

State Sponsored EE non-profit entities



ELIGIBLE ACTIVITIES

(ENERGY EFFICIENCY MEASURES)

Lighting Improvements (Residential and commercial)

HVAC Systems

Building Envelope Improvements

Water Heaters

Compressed Air Systems

Motors

Boilers, Dryers, Heaters and process related equipment

Energy Audits

On or Off Grid Renewable Energy Systems

Energy Storage Devices

Energy Efficient Appliance Upgrades (fixed to real property)

Irrigation or Water and Waste Disposal System Efficiency Improvements

Replacement of Manufactured Homes

Electric Vehicle Chargers in behind the meter applications

Other Approved Activities and investments directly related to Energy Efficiency Implementation

RESP- PROGRAM ACTIVITY

	States	Loan Amount	No. of Loans
1	Arkansas	116,500,000	6
2	California	250,000	1
3	Colorado	101,500,000	5
4	Georgia	4,500,000	1
5	Hawaii	20,000,000	1
6	Indiana	1,650,000	2
7	Maryland	4,900,000	1
8	Massachusetts	4,900,000	1
9	Michigan	2,800,000	2
10	Montana	200,000	1
11	North Carolina	6,200,000	2
12	Ohio	3,500,000	2
13	Oklahoma	12,000,000	1
14	Oregon	17,000,000	4
15	Pennsylvania	1,000,000	1
16	South Carolina	15,500,000	2
17	Tennessee	5,000,000	1
18	Texas	35,000,000	2
19	Vermont	40,000,000	1
20	Virginia	13,093,000	3
21	Washington	81,800,000	5
22	Wisconsin	1,300,000	2
	Grand Total	488,593,000	47

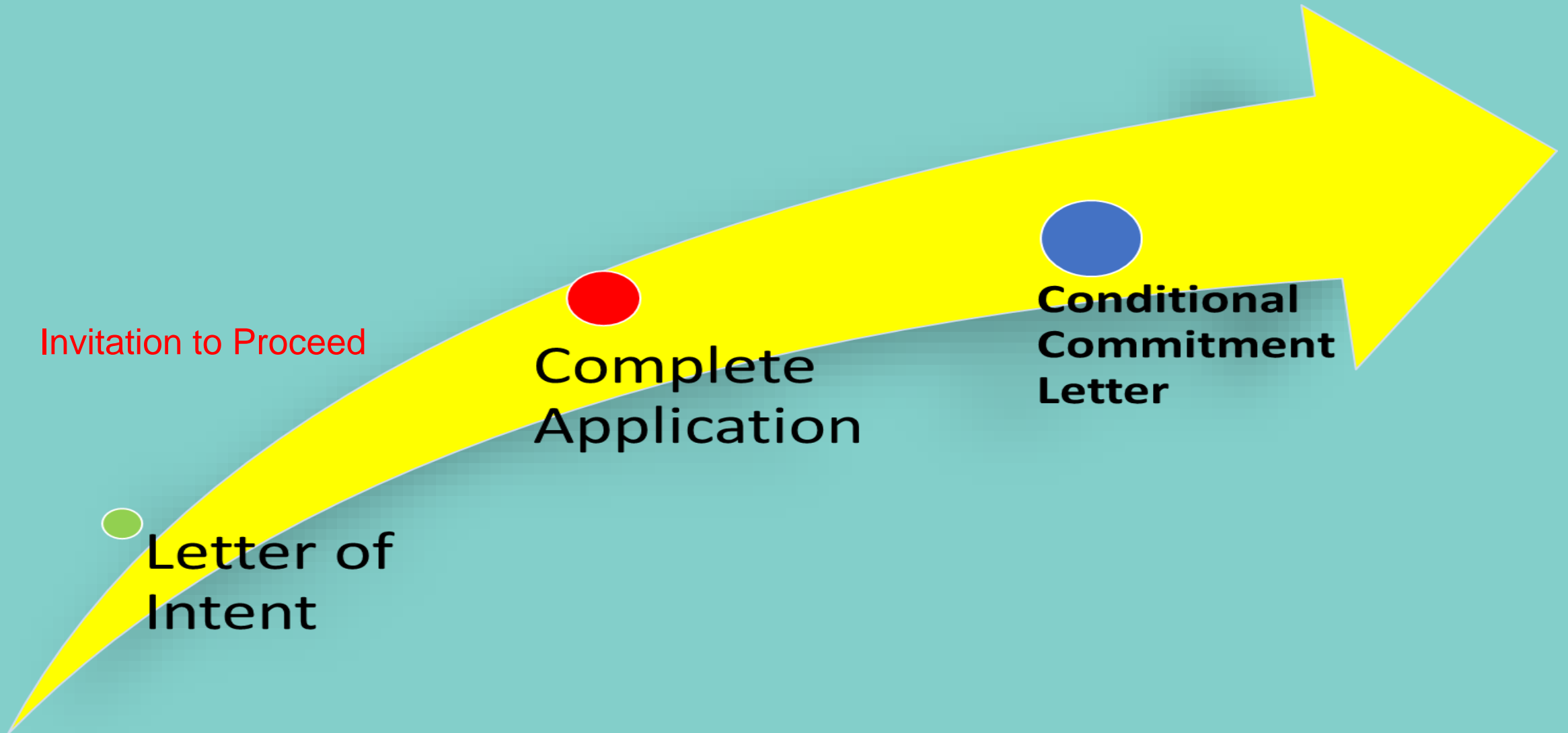
2017-2023

- 47 Loans
- 22 States
- Average loan size:
\$10,395,596

ELIGIBLE ACTIVITIES (ENERGY EFFICIENCY MEASURES)

- Lighting Improvements
(Residential and commercial)
- HVAC Systems
- Building Envelope Improvements
- Water Heaters
- Compressed Air Systems
- Motors
- Boilers, Dryers, Heaters and process related equipment
- Energy Audits
- On or Off Grid Renewable Energy Systems
- Energy Storage Devices
- Energy Efficient Appliance Upgrades
(fixed to real property)
- Irrigation or Water and Waste Disposal System Efficiency Improvements
- Replacement of Manufactured Homes
- Electric Vehicle Chargers in behind the meter applications
- Other Approved Activities and investments directly related to Energy Efficiency Implementation

RESP APPLICATION PROCESS



LETTER OF INTENT

Project Description (5 pages max.)

- Official name, legal status, SAMMI number, RUS affiliation, if any
- Identify service territory
- Contact information of the individual that will be the point of contact with RUS.
- Net assets value, other financial information for 3 previous years
- If request is greater than \$5 Million, include evidence of key performance indicators for past 5 years.
- Description of service to be provided
- Identify staff or contractors for EE program, with credentials
- Implementation Plan
- Marketing strategy
- Relending process
- Schedule of sources and uses of funds
- Brief description of the processes and procedures for EE verification or cost reduction
- List of EE measures to be implemented

REPRESENTATIVE SUCCESSFUL LOAN APPLICATIONS

Small Business EE Program

- Microloans to eligible **small commercial customers** to implement EE improvements
- **Loan sizes from \$5,000-\$100,000**
- RUS borrower works with a partner for loan processing, underwriting, closing, and servicing but loan approval remains with the RUS borrower.

Loan terms:

- Not to exceed 10 years
- 3% fixed interest rate
- 25% equity of eligible project costs
- 15% minimum energy savings supported by energy audit
- 60 days estimated timeframe for closing the loans with the RUS borrower's consumer.

On-Bill Tariffed Financing

- It is optional and voluntary for the electric cooperative's members.
- Available to **residential, small commercial members** of the electric cooperative and to the **building owner of any structure occupied by an existing co-op rental member**.
- The electric cooperative recovers the cost of the investments in EE measures through a **monthly charge assigned to the meter** at the location where the upgrades were installed until the cost is recovered. **Future occupants will pay for the upgrades until the cost is recovered.**
- Project size: \$1,000-\$25,000
- **The charge for energy efficiency investments is considered an essential part of the consumer's bill for electric service.**

Residential EE Program

- Implemented by a non-profit on behalf of several participating electric cooperatives
- Loan loss reserve: 1%
- **Loan size to qualified consumers approx. \$10,000 @ 3% annual rate.**
- Loans will be made to homeowners & renters with the consent of their landlord.
- **Loan payments are recovered by on-bill charges on the electric bills.**
- Energy savings tracked for each unit comparing pre and post retrofit energy use. (Baseline is then weather normalized).
- If a preliminary screening shows the electric coop member would likely benefit from EE investments, then an energy audit is performed, and a set of EE recommendations are provided to the member.



KEY REFERENCES IN USDA

Rural Development State Directors:

<https://www.rd.usda.gov/contact-us/state-offices>

Electric Program Contact Information:

<https://www.rd.usda.gov/programs-services/all-programs/electric-programs>

Electric Program General Field Representatives (GFR's):

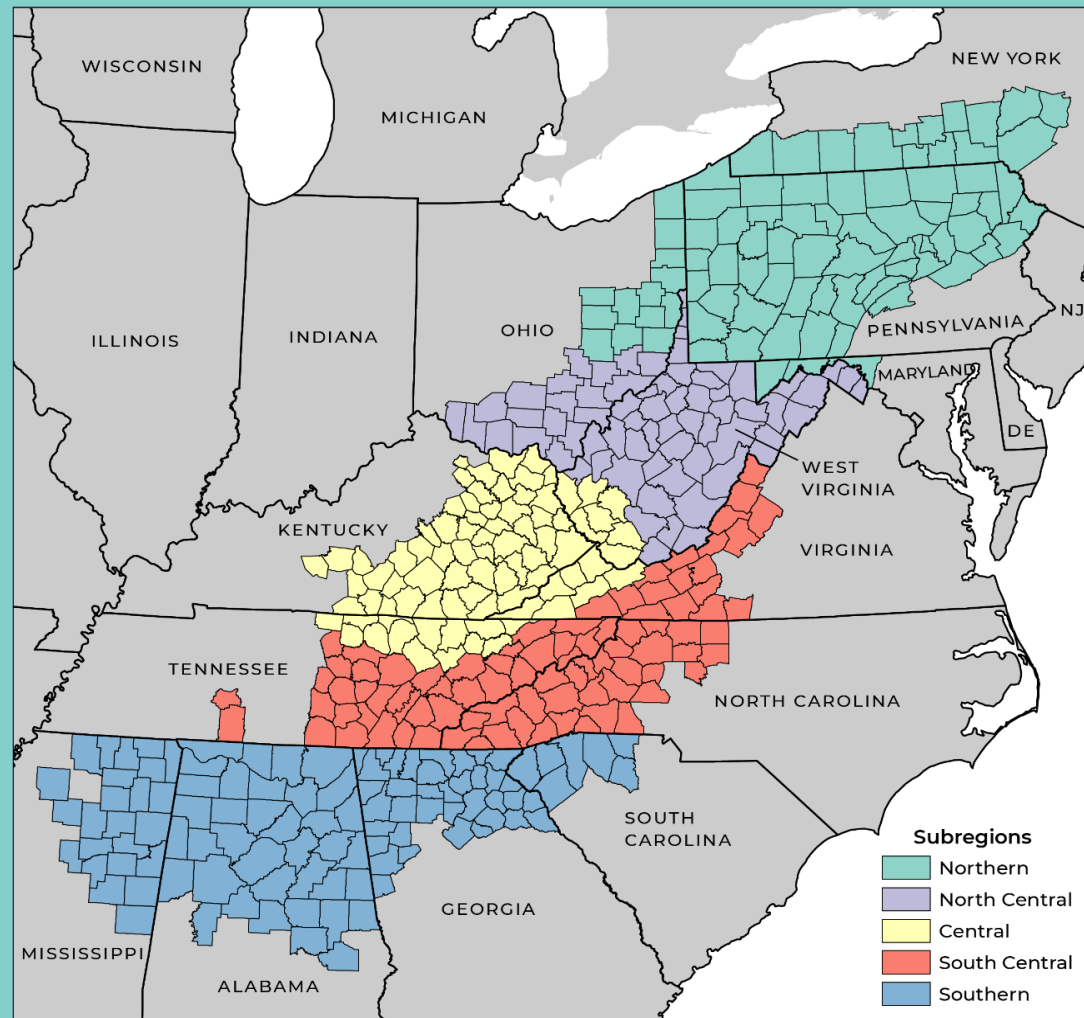
<https://www.rd.usda.gov/contact-us/electric-gfr>



**APPALACHIAN REGIONAL
INITIATIVE FOR STRONGER
ECONOMIES
(ARISE)**

Appalachian Regional Commission Program

ARISE- ARC GRANT PROGRAM



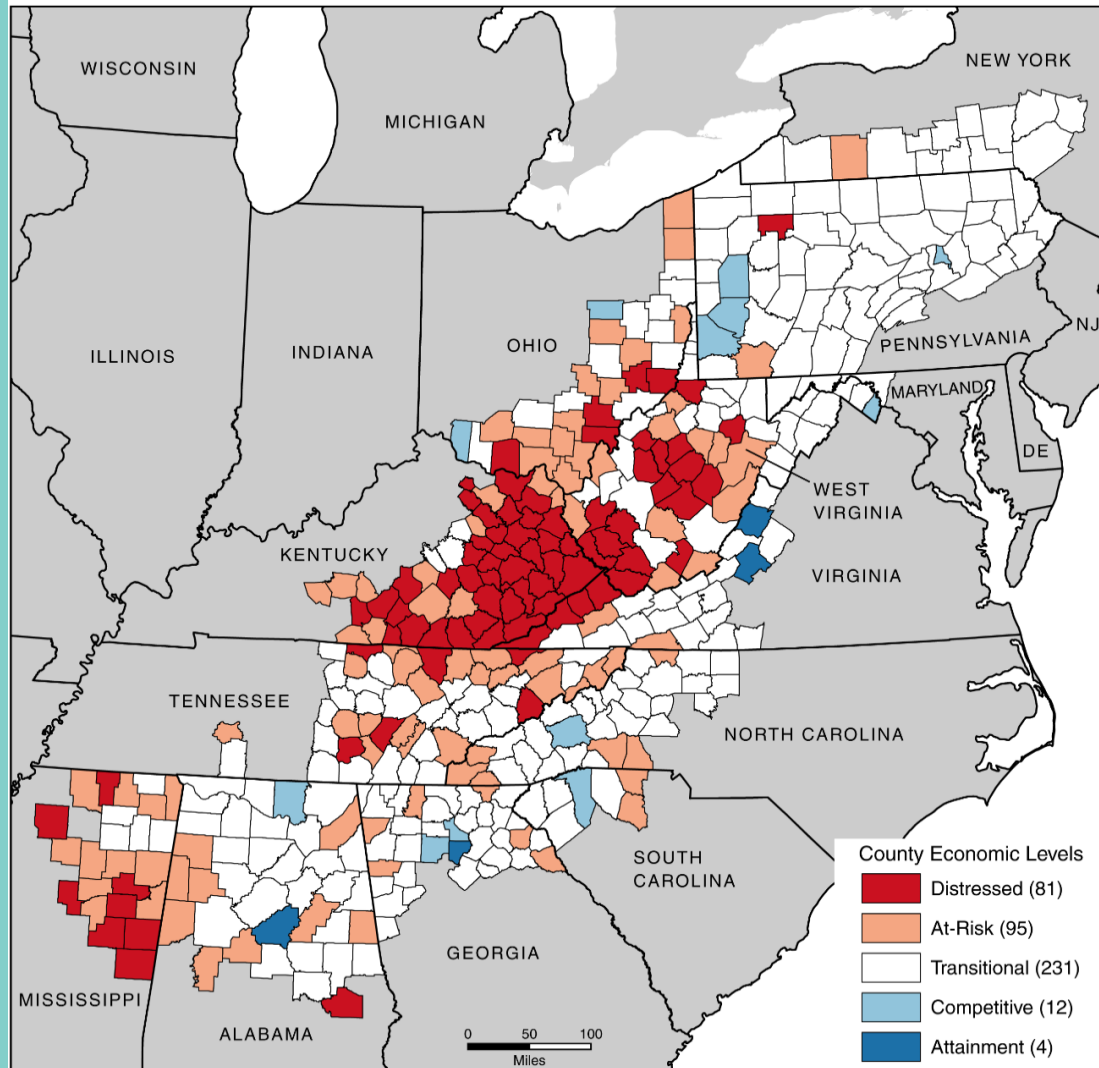
Funded with The Infrastructure Investment and Jobs Act (IIJA) of 2021, which provided the ARC with \$200 million per year for five years.

ARC launched ARISE to strengthen Appalachian business and industry, and to grow and support the development of new economic opportunities across multiple states.

- 1.) building businesses,
- 2.) building workforce ecosystems,
- 3.) **building infrastructure,**
- 4.) building regional culture and tourism, or
- 5.) building leaders and community capacity.

Only available in the Appalachian Region.

ARC- COUNTY ECONOMIC STATUS, FY 2022



ARC's five county economic status designations are based on three indicators: three-year average unemployment rates, per capita market income, and poverty rates.

- **Distressed:** The most economically depressed counties, ranking in the worst 10% of the nation's counties. In FY 2019, 81 Appalachian counties are designated as distressed.
- **At-risk:** Counties at risk of becoming distressed.
- **Transitional:** Counties transitioning between at-risk and competitive status.
- **Competitive:** Counties that are able to compete in the national economy but don't rank in the highest 10% of the nation's counties.
- **Attainment:** The economically strongest counties, ranking in the best 10% of the nation's counties.

MATCH REQUIREMENTS

(MATCH RATES ARE DETERMINED BY COUNTY ECONOMIC STATUS DESIGNATIONS)

County Designation	Max ARC	Min Match
Distressed	80%	20%
At-Risk	70%	30%
Transitional	50%	50%
Competitive	30%	70%
Attainment	0%	100%

ARISE: FUNDING AVAILABILITY

Planning Grants:

Funding Availability

✓ \$10 M

Max Grant Size

✓ \$500,000

Anticipated Project Length

✓ Up to one year

Implementation Grants:

- Funding Availability

✓ \$63.5 M

- Max Grant Size

✓ \$10 M

- Anticipated Project Length

✓ Up to five years



ARISE: WHO IS ELIGIBLE?

- ✓ Local development districts (LDDs);
- ✓ Indian Tribes or a consortium of Indian Tribes;
- ✓ States, counties, cities, or other political subdivision of a state, including a special purpose unit of a state or local government engaged in economic or infrastructure development activities, or a consortium of political subdivisions;
- ✓ Institutions of higher education or a consortium of institutions of higher education;
- ✓ Public or private nonprofit organizations or associations.



KEY ELIGIBILITY FACTORS

- ✓ Projects must serve and benefit, **at a minimum, two (2) states** within a portion of the Appalachian Region.
- ✓ There must be **at least two (2) eligible organizations collaborating** across more than one Appalachian Region state.
 - At least one (1) partner in each state impacted.

INTERESTED IN APPLYING?

1. Design your Multistate Project

2. Project Summary to State Program Managers

3. Concept Paper

4. Invitation to Apply > Submission

FUNDING AVAILABILITY

Important Dates

ARC is accepting ARISE concept papers on an ongoing basis. Concept papers will be reviewed in batches every two months starting after the first submittal deadline.

1st round: October 31, 2023

2nd round: December 31, 2023

3rd round: February 29, 2024

4th round: April 30, 2024

5th round: June 30, 2024

ARISE: AVAILABLE RESOURCES

[ARISE Frequently Asked Questions](#)

[Multistate Collaboration Toolkit](#)

[ARISE Application Checklist](#)

[ARC Strategic Plan 2022-2026](#)

[State Plans and Strategies](#)

[State Program Managers](#)

www.arc.gov/arise/

[www.arc.gov/arise-
application-information/](http://www.arc.gov/arise-application-information/)



PARTNERSHIPS FOR OPPORTUNITY AND WORKFORCE AND ECONOMIC REVITALIZATION INITIATIVE (POWER)

- Help communities and regions that have been affected by job losses in coal mining, coal power plant operations, and coal-related supply chain industries due to the changing economics of America's energy production.
- Over \$420 million invested in 507 projects impacting 365 coal-impacted counties since 2015.
- In 2021, a grant awarded for the purpose of implementing the Appalachian Solar Finance Fund.
- ARC plans to release a notice of solicitations of applications in early 2024.

<https://www.arc.gov/grants-and-opportunities/power/>



ELECTIVE PAY (IRA)



ELECTIVE PAY (DIRECT PAY)

- Allows applicable entities to benefit from some clean energy tax credits. (Tax-exempt & governmental entities that would otherwise be unable to claim these credits because they do not owe federal income tax)
- Treats the amount of the credit as a payment of tax and refunding any resulting overpayment.
- Certain applicable credits offer higher credit amounts to projects that:
 - 1- pay prevailing wages and use registered apprentices,
 - 2- are located in low-income communities or energy communities, or
 - 3- meet certain domestic content requirements.

WHO IS ELIGIBLE FOR DIRECT PAY?

General:

- 1- Tax-exempt organizations
- 2- States
- 3- Political Subdivisions (local governments)
- 4- Indian tribal governments
- 5- Alaskan Native Corporations
- 6- TVA
- 7- Rural electric cooperatives
- 8- US territories and political subdivisions
- 9- Agencies & instrumentalities of state, local, tribal and US territorial governments

- Public charities
- Private foundations
- Social welfare organizations
- Labor, agricultural, horticultural organizations
- Business leagues
- Religious or apostolic organizations

- Carbon dioxide sequestration (45Q credit)
- Production of clean hydrogen (45V credit)
- Advanced manufacturing production (45X credit)

Electing taxpayers

12 TAX CREDITS ELIGIBLE FOR ELECTIVE PAY

1. Energy Credit (48)

2. Clean Electricity Investment Credit (48E)

3. Renewable Electricity Production Credit (45),
4. Clean Electricity Production Credit (45Y)

5. Commercial Clean Vehicle Credit (45W)

6. Zero-emission Nuclear Power Production
Credit (45U)

7. Advanced Manufacturing Production Credit
(45X)

8. Clean Hydrogen Production Credit (45V),
(Form 7210)

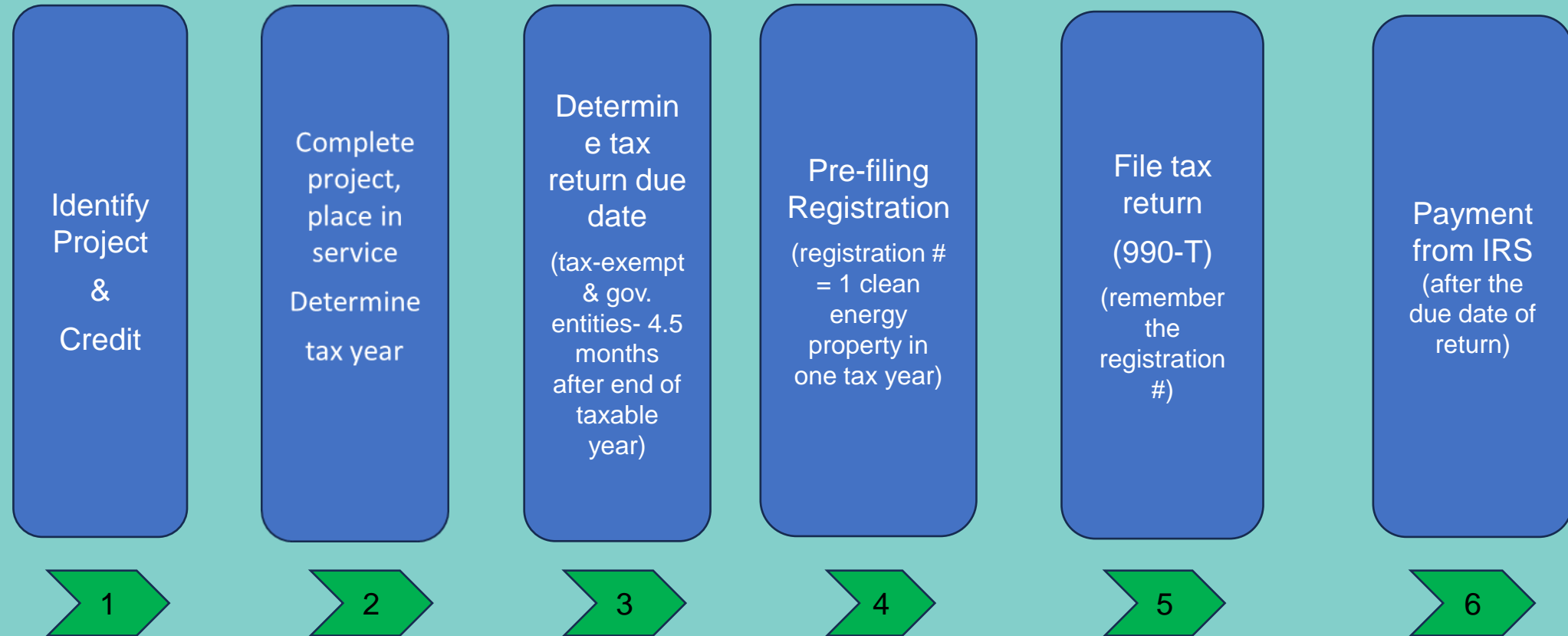
9. Clean Fuel Production Credit (45Z)

10. Carbon Oxide Sequestration Credit (45Q)

11. Credit for Alternative Fuel Vehicle Refueling
/ Recharging Property (30C)

12. Qualifying Advanced Energy Project Credit
(48C)

HOW TO APPLY...





IRA DIRECT PAY - TAX CREDIT BONUSES



PREVAILING WAGES & APPRENTICESHIP

1. Taxpayers may receive increased tax benefits by meeting prevailing wage and apprenticeship requirements.
 - Section 30C alternative fuel vehicle refueling property credit
 - Section 45 renewable electricity production credit
 - Section 45Q credit for carbon oxide sequestration
 - Section 45V credit for production of clean hydrogen
 - Section 45Y clean electricity production credit
 - Section 45Z clean fuel production credit
 - Section 48 energy credit
 - Section 48C qualifying advanced energy project credit
 - Section 48E clean electricity investment credit
 - Section 179D energy efficient commercial buildings deduction



DOMESTIC CONTENT BONUS

2. It applies to **facilities or projects** built using the required amounts of domestically **produced steel or iron**, and **manufactured products**.

- Available for certain Production Credits for renewable electricity (§§ 45, 45Y)
- Available for Investment Credits for renewable energy (§§ 48, 48E)




ENERGY COMMUNITY BONUS

3. It applies to projects located in historical energy communities


- areas with closed coal mines or
- areas with coal-fired power plants.
- Available to brownfield sites
- Available to areas that have significant employment
- Areas with local tax revenues from fossil fuels and higher than average unemployment.

TOOL TO IDENTIFY ENERGY COMMUNITIES...

[HTTPS://ENERGYCOMMUNITIES.GOV/ENERGY-COMMUNITY-TAX-CREDIT-BONUS/](https://energycommunities.gov/energy-community-tax-credit-bonus/)



Energy Community Tax Credit Bonus



LEGEND

Coal Closure Energy Communities

Tract Status

- Census tract directly adjoining a census tract with a coal closure
- Census tract with a coal closure

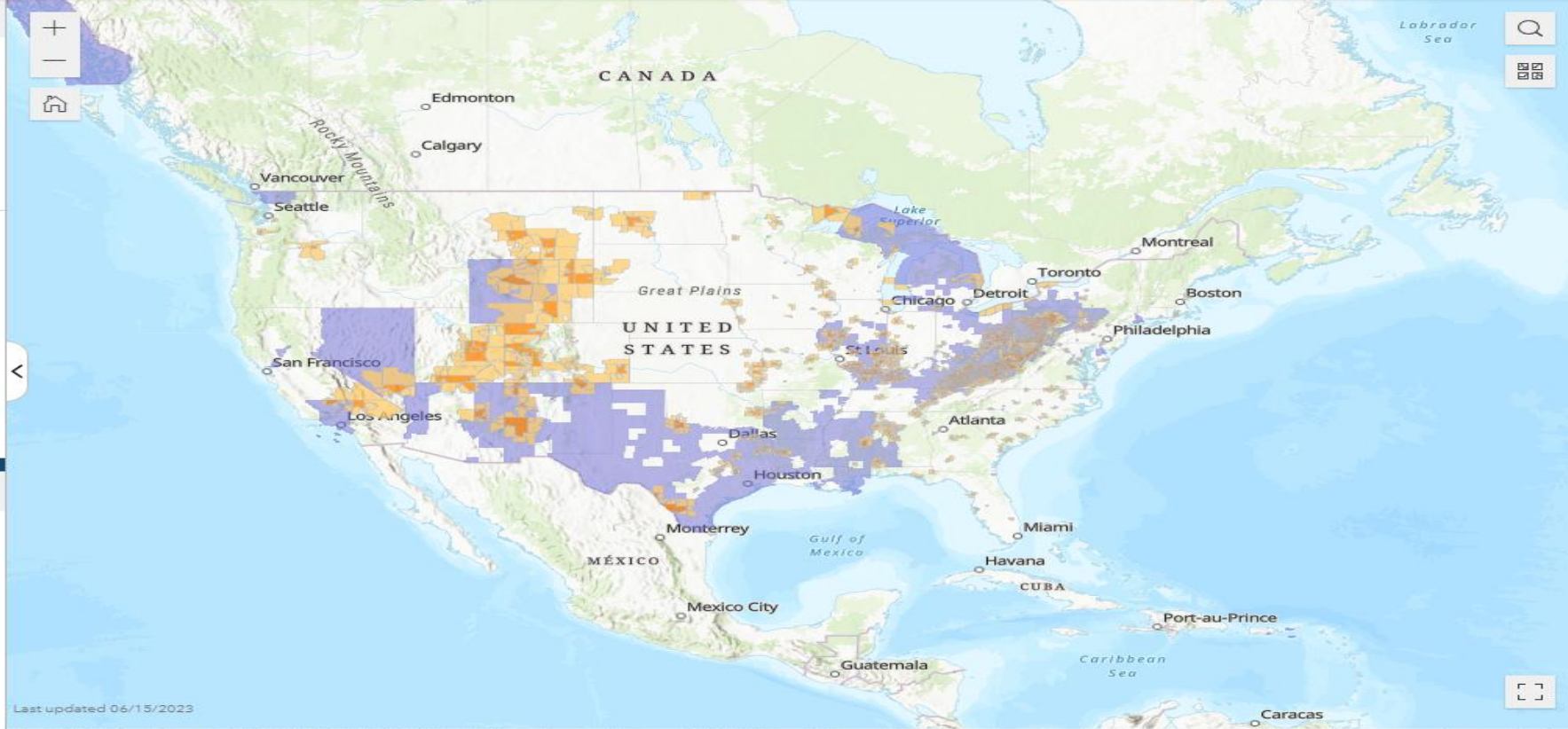
MSA/Non-MSAs that are Energy Communities

Status

- MSAs/non-MSAs that meet both the Fossil Fuel Employment (FEE) threshold and the unemployment rate requirement

MAP LAYERS

- Coal Closure Energy Communities
- MSA/Non-MSAs that are Energy Communities
- MSA/Non-MSAs that meet the Fossil Fuel Employment Threshold



Last updated 06/15/2023

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U.S. Department of Energy

LOW-INCOME COMMUNITIES BONUS

4. Provides an increased credit of 10 % points or 20 % points to certain applicable credits that are part of the investment tax credit (§§ 48, 48E) for certain facilities in one of four categories.

- (1) located in a low-income community,
- (2) located on Indian land,
- (3) installed on certain federal housing projects, or
- (4) serving low-income households.

RESOURCES

1. The Internal Revenue Service-
www.irs.gov/credits-deductions/elective-pay-and-transferability
2. The White House-
www.whitehouse.gov/cleanenergy/clean-energy-tax-provisions/
3. The Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization-
<https://energycommunities.gov/funding-opportunities/tax-credits/>

THANK YOU!